

Work Order ID 151320

Wednesday, September 21, 2016 11:29:01 A

151320

Page 1

Item ID: D120-639-021 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: OEM Replacement Wearplate (s/n 1391 and sub)
 Start Date: 9/21/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 9/29/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: dem Date: 10/9/21 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI 9623	A	SEP 21 2016						SEP 21 2016	
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D120-639-021 CHG001								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.01							
Quality Control									

SEP 21 2016

SEP 21 2016

SEP 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																			
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N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Start Date: 9/21/2016 **Start Qty:** 1.00 ***1***

Required Date: 9/29/2016 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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0.00

130

Packaging

Memo

0.00

Packaging

Packaging

Identify and pack for shipping as per PPP D120-639-021
Location:FG128A

DAS
27
9-89

28
9-8x

SEP 20 2016

0.00

140

QC21- Final Inspection - Work Order Release

Memo

0.02

QC

Quality Control

DAS
21
8-85

SEP 21 2016

DAS
21
9-89

SEP 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Page 1

Work Order ID: 151320

151320

Parent Item: D120-639-021

D120-639-021

Parent Item Name: OEM Replacement Wearplate (s/n 1391 and sub)

Start Date: 9/21/2016

Required Date: 9/29/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 12.07.04 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2648-3 *D2648-3* Wearpad		Manufactured	No			110	Each	18.0000	5	5			PC 28 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					FG			3					
					85490			3					
					ST183			15					
					141016			15		5			
D2656-13 *D2656-13* Wearplate Fwd		Manufactured	No			110	Each	6.0000	1	1			PC 28 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST602			6					
					138230			5		1			
					144721			1					
D2746 *D2746* Wearplate		Manufactured	No			110	Each	5.0000	1	1			PC 28 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST190			5					
					128891			3					
					91907			2		1			
D4677-1 *D4677-1* Wearplate, Aft		Manufactured	No			110	Each	4.0000	1	1			PC 28 9-89
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					FP002			4					
					129835			4					

SEP 21 2016

DQA: _____ Date: _____



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Picklist Print

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D120-639-021

Parent Item Name: OEM Replacement Wearplate (s/n 1391 and sub)

Start Date: 9/21/2016

Required Date: 9/29/2016

Start Qty: 1.00

Required Qty: 1.00

ALS7-1032-130

AELS8-1032-130

Purchased

No

110

Each

757.0000

38

38

ALS7-1032-130

Rivnut

**

~135442 pc

28
9-8

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

50

M128649

50

FP001

707

M128649

707

MS27039-1-08

Purchased

No

110

Each

211.0000

38

38

MS27039-1-08

Screw

**

pc
28
9-89

DAS
27
9-23

Location

Loc Qty

Loc Code

FP001

63

m128636

63

GA

72

125654

1

m128636

71

ST281

76

m134762

76

38

SEP 21 2016

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Picklist Print

Wednesday, September 21, 2016 11:29:01 AM

Page 3

Work Order ID: 151320

151320

Parent Item: D120-639-021

D120-639-021

Parent Item Name: OEM Replacement Wearplate (s/n 1391 and sub)

Start Date: 9/21/2016

Required Date: 9/29/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0332J

Purchased

No

110

Each

1,584.000

38

38

NAS1149D0332.J

Washer

PC

28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

CA

6

m129682

6

FP001

204

m134848

204

GA

300

m134848

300

ST260a

600

m135672

600

ST264

474

m135536

31

m135566

443

38

SEP 21 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
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OTHER : _____																					

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D120-639 REV. A AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D120-639 REV. 0

REF TCCA STC: SH01-25
REF FAA STC: SR01347NY
REF EASA STC: EASA.IM.R.S.01452

1.0 PUPOSE

It has come to Dart's attention that the D120-639-011/-013 Weaplate Kits can't be installed as intended on recent EC 120B aircraft due to a Eurocopter design change on the spring blade located at the aft end of the skidtube. This Dart Service Instruction (DSI) introduces the new D120-639-021 Wearplate Kit (fits one skidtube) for customers with aircraft equipped with the new style spring blades. The D120-639-021 Wearplate Kits should be installed in pairs (one per skidtube).

2.0 INSTALLATION

- 2.1 Remove existing wearplates and plug all unused holes with the screws that were just removed.
- 2.2 Remove and retain DHS411-101-2076 Bolt and associated hardware securing the spring blade per aircraft maintenance manual.
- 2.3 Locate D4677-1 Wearplate using DHS411-101-2076 Bolt removed at Step 2.2 as shown in Figure 1 of this service instruction. Locate D2746 and D2656-13 Wearplates as shown in Figure 1. Adjust the amount of overlap between the wearplates to ensure that the wearplate holes do not interfere with any existing holes in the skidtube. Temporarily clamp the wearplates into the proper position.
- 2.4 Using the wearplates as a template, drill $\varnothing 0.125$ holes in the center of the wearplate obrounds. To help maintain position of the wearplates during the drilling operation, it is recommended to cleco the wearplates to the skidtube as the pilot holes are drilled. Remove wearplates after all pilot holes are drilled.
- 2.5 Open holes drilled in previous step to $\varnothing 0.297$ and deburr. Remove swarf from inside of skidtube. Touch up holes with chemical film material (Alodine 1200/1201) per MIL-C-5541 and one coat of MIL-P-85582 or MIL-P-23377 primer. Install ALS7-1032-130 inserts.
- 2.6 Install the D2656-13, D2746, and D4677-1 Wearplates and D2648-3 Wearpads using the MS27039-1-08 Screws and NAS1149D0332J Washers. Seal all screws with Sikaflex-241/291 (or Proseal 890) sealant before installing. Re-install the DHS411-101-2076 Bolt and associated hardware and torque to 44.3-61.9 in-lb (5.0 7.0 N-m). Note: It is acceptable to omit the washer(s) on DHS411-101-2076 Bolt to ensure 1.5-4 threads in safety. It is acceptable to trim the D4677-1 Wearplate as required to clear the aft saddle.
- 2.7 Adjust weight and balance in accordance with Section 4.0 below.

3.0 MAINTENANCE

Maintain the D120-639-021 Wearplate Kit in accordance with ICA-D120-639 Rev. 0 or later approved revision.

4.0 WEIGHT AND BALANCE

Installation	Weight	LONGITUDINAL		LATERAL	
		Arm	Moment	Arm	Moment
D120-639-021 WEARPLATE KIT	3.2 lb 1.5 kg	136.0 in 3.45 m	435 in-lb 5.2 m-kG	± 40.7 in ± 1.03 m	± 130 in-lb ± 1.5 m-kG

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: MSH
D. SHEPHERD (DE # 02)

DATE: 12.07.05
CERT. NO.: SH01-25
ISSUE NO.: 1

A	NEW ISSUE	MB	12.06.29
REV.	DESCRIPTION	BY	DATE
DESIGN	<u>1</u>	DART AEROSPACE LTD	
DRAWN	<u>1</u>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<u>OP</u>	DRAWING NO.	REV. A
MFG. APPR.	<u>U/A</u>	DSI 9623	SHEET 1 OF 2
APPROVED	<u>W</u>	TITLE	SCALE
DE APPR.	<u>W</u>	WEARPLATE KIT	NTS
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16/09/11
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ENGINEERING

5.0 PART LIST

Qty -021	Part Number	Description
X	D120-639-021	WEARPLATE KIT
5	D2648-3	WEARPAD
1	D2656-13	WEARPLATE
1	D2746	WEARPLATE
1	D4677-1	WEARPLATE
38	ALS7-1032-130 or AKS7-1032-130 or ALS4-1032-130 or AKS4-1032-130	INSERT
38	MS27039-1-08	SCREW
38	NAS1149D0332J	WASHER

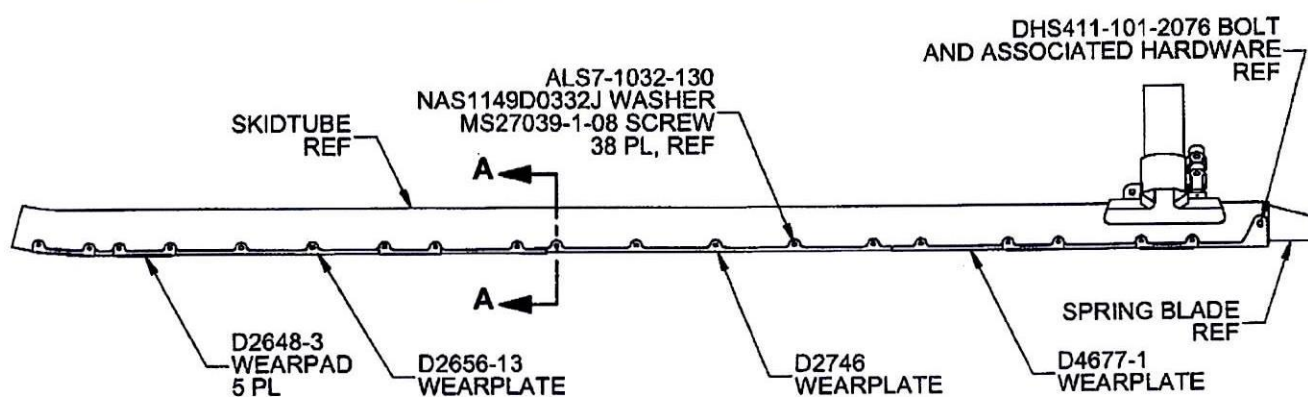
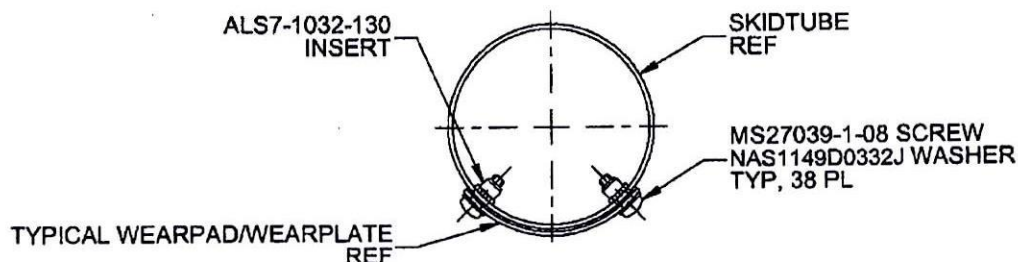


FIGURE 1: D120-639-021 WEARPLATE KIT INSTALLATION



SECTION A-A: TYPICAL SKIDTUBE SECTION
SCALE 4X

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DAO # 01-O-01

APPROVED

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CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9623	REV. A
MFG. APPR.	N/A		SHEET 2 OF 2
APPROVED	<i>[Signature]</i>	TITLE WEARPLATE KIT	SCALE NTS
DE APPR.	<i>[Signature]</i>		
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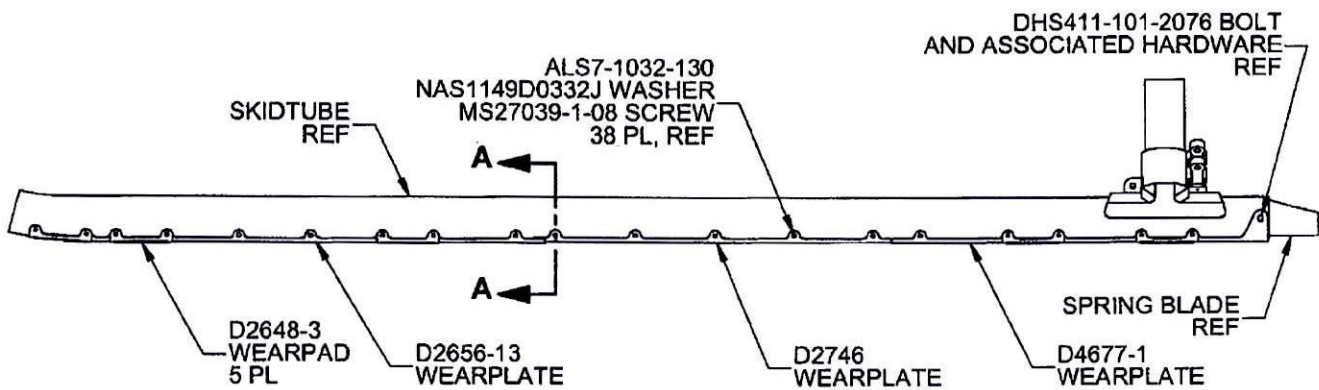
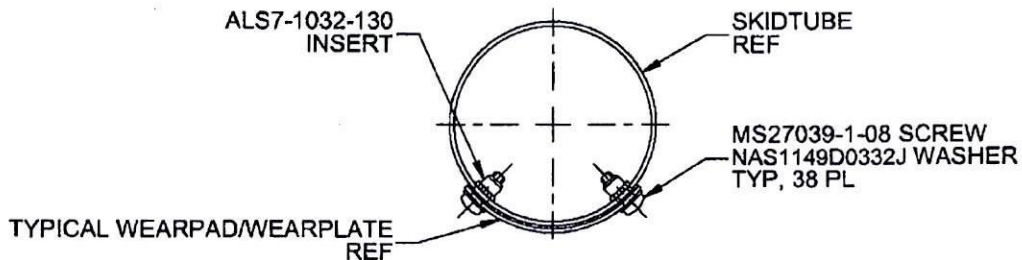


FIGURE 1: D120-639-021 WEARPLATE KIT INSTALLATION



SECTION A-A: TYPICAL SKIDTUBE SECTION

SCALE 4X

CANADA
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BRANCH
DAO # 01-O-01

APPROVED

BY: *D. Shepherd*
D. SHEPHERD (DE # 02)

DATE: 12.07.05
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